

RH

# Work Order ID 76618

**\*76618\***

Page 1

November-18-11 9:18:45 AM

Item ID: D206-642-151 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Replacement Skidtube  
 Start Date: 18/11/2011 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 16/01/2012 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: M.C.J Date: 11/11/18 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_  
 Run Start **\*NR1\***  
 Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3804	A								
IIN-D206-642	O								

100 0.00  
**\*100\*** DOCUMENT CONTROL  
 DC Memo 0.00  
 Document Control Photocopy bluefile & type labels per PPP D206-642-151 CHG001

W/A CK 12/01/04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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**\*76618\***

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Item ID: D206-642-151

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 18/11/2011 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 16/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

110

0.00

**\*110\***

Skidtubes

0.00

Skidtubes

Memo

1-Deburr Fwd edge of tube

2- Remove ridge on inside of Fwd edge of tube as per Dwg D3804

3-Weld Fwd Cap as per Dwg D3804. Use aluminum rod. Grind D2647 to fit as required.

Pick:

Qty Part Number Description Batch

A/R Aluminum Rod M117889

4-Grind weld flush to cap on top surface only.

5-Cut Aft end as per dwg D3804 from front of tube and Deburr

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D3804

7-Open holes for Aft end cap as per Dwg D3804 with #30 Drill Bit using DT8025.

8-Drill pilot holes using Dt8166 &amp; DT8169D &amp; DT9771.

9-Locate DT8732 from inner Aft saddle hole &amp; 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 &amp; D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 &amp; doubler leaving DT8732 for added support.

10- Drill D3286-1 doubler rivet holes in tube using # 30 drill, spot drilling doubler at the same time.

De 11/12/05

78E11-12-06

SAD 11-12-05 ①

De 11/12/07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Item ID: D206-642-151

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**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 18/11/2011 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 16/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads.

12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D3804

13-Remove D3286-1 doublers, identify orientation, deburr, then attach them to the workorder

14-Remove indexing edge using DT8741 as per Dwg D3804

15-C'sink GHW rivet holes as per Dwg D3804

16- Open Aft cap hole #6.  
\*\*\*\*no wearplate holes for this skidtube\*\*\*\*

17-Deburr tube and blow out chips from inside the tube

QC6- Inspect dimensions to drawing 0.00

Memo 0.00

**\*120\***

QC

Quality Control

DL 11/12/07

DL 11/12/07

8 11/12/07

④

W/O:		WORK ORDER CHANGES					
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Reference:

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Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 <b>*140*</b> HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00  0.00							
			PL	11/12/07					
150 <b>*150*</b> QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00							
			DD	11-12-3					
160 <b>*160*</b> Skidtubes Skidtubes Skidtubes	Skidtubes  Memo 1-Open holes to finished size as per Dwg D3804, (without cutting fluid) 2-C'sink crossbolt spacer holes as per Dwg D3804(without cutting fluid) 3-Deburr and blow out all chips from inside the tube	0.00  0.00							
				PL	11/12/07				

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Start Date: 18/11/2011 Start Qty: 1.00

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Cust Item ID:

Required Date: 16/01/2012 Req'd Qty: 1.00

**\*1\***

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Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

170

QC6- Inspect dimensions to drawing

0.00

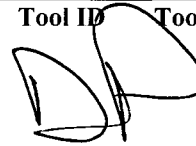
**\*170\***

QC

Memo

0.00

Quality Control



11-12-7

180

Skidtubes

0.00

**\*180\***

Skidtubes

Memo

0.00

Skidtubes

1-Locate, install and rivet doublers as per Dwg D3804. Micro-shave rivets as required

DP 11-12-7

2-Bond D2654-1 web in place as per QSI 015. Ensure holes line up. Allow 12

Hrs. cure time before cutting

Start Date: 11/12/07 Time: 5:55

Finish Date: 11-12-08 Time: 3:00

Pick:

Qty Part Number Description Batch

A/RSikaflex-291 117371

Sikaflex expire date: 12/08/13

De 11/12/07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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NOTE: Date & initial all entries

**\*76618\***

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**\*N900040100\***

Setup Start \*NS1\*

Stop **\*NS2\***

**Start Date:** 18/11/2011    **Start Qty:** 1.00    **\*1\***

**Required Date:** 16/01/2012      **Req'd Qty:** 1.00      **\*1\***

**Reference:**

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

## Set Up/ Run Hours

**Tool #****Plan  
Code**

**Accept  
Qty**

Reject  
QtyReject  
Number

**Insp.  
Stamp**

QC5- Inspect part completeness to step on W/O

0.00

**\*190\***

QC

## Memo

0.00

### Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**Work Order ID 76618****\*76618\***

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November-18-11 9:18:45 AM

Item ID: D206-642-151

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 18/11/2011 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 16/01/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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200

0.00

**\*200\***

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-remove alodine from around hole and prepare for welding

2-Prep per QSI 005 and Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D3804. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.

Pick:

QtyPart NumberDescriptionBatch  
A/RAluminum Rod M117809

3-Grind welds flush as per Dwg D3804.

4-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D3804. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.

A/RSS Rod NONE

5-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D3804. Deburr

*BE 11-12-08**BE 11/12/09**BE 11-12-09**DP 11-12-9*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**\*76618\***

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**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**\* 1 \***

**Cust Item ID:**

**\* 1 \***

**Customer:**

**Reference:**

Run Start \*NR1\*

Stop **\*NR2\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

**Insp.  
Stamp**

0.00

**\*210\***

## HandFinishing

0.00

HandFinish

## Memo

## Hand Finishing

Install D2680-041 Nut Plate as per Dwg D3804

215

QC9- Inspect visual per QSI004- Fusion Welds

0.00

**\*215\***

## Memo

0.00

QC

## Quality Control

220

QC10- Inspect visual per QSI004- ground welds

0.00

\*220\*

## Memo

0.00

QC

### Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**Work Order ID 76618****\*76618\***

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Item ID: D206-642-151 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Replacement Skidtube  
Start Date: 18/11/2011 Start Qty: 1.00 **\*1\*** Cust Item ID:  
Required Date: 16/01/2012 Req'd Qty: 1.00 **\*1\*** Customer:  
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Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230	QC5- Inspect part completeness to step on W/O	0.00							
<b>*230*</b>									
QC	Memo	0.00							
Quality Control									
240	Pressure Wash per QSI005 4.3	0.00							
<b>*240*</b>									
HandFinish	Memo	0.00							
Hand Finishing									
250	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
<b>*250*</b>									
Powdercoat	Memo	0.00							
Powder Coating									

M 119480

Memo  
START TIME:  
OVEN TEMPERATURE:  
FINISH TIME:

11:30  
3200 F  
12:00

1 X 11-12-14  
BR.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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1 BR 11-12-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	HandFinishing	0.00							
<b>*280*</b>									
HandFinish	Memo	0.00							
Hand Finishing	1-Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive A/RSikaflex-291 <u>119443</u> Sikaflex expire date: <u>2-1</u>								
	2- Install wearplate as per dwg								
	2-Wing Walk as per Dwg D3804 and QSI 005 4.4 Batch: <u>119094</u>								
290	QC3- Inspect Part Finish	0.00							
<b>*290*</b>									
QC	Memo	0.00							
Quality Control									

1 B2 11-12-20

8/11/21/21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
300 <b>*300*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00							
310 <b>*310*</b> Packaging Packaging	Packaging  Memo Identify and pack for shipping as per PPP D206-642-151 Location: _____ PPP Rev: _____	0.00 0.00							
320 <b>*320*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00 0.00							

8/11/21

PPP 75724

11/12/28

OK 12/01/02

11-12-30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



# Picklist Print

November-18-11 9:18:49 AM

Page 1

Work Order ID: 76618

**\*76618\***

Parent Item: D206-642-151

**\*D206-642-151\***

Parent Item Name: Replacement Skidtube

Start Date: 18/11/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 10.12.08 PER IIN REV:N DD VERF:EC  
REV:B 11.09.16 PER IIN REV:O DD VERF:EC

IPP

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2620

Manufactured

No

110

Each

14.0000

1

1

**\*D2620\***

Skidtube, 206 Skidtube

\*\*

*De 11/12/05*

Location

Loc Qty

Loc Code

LG

*75471*

14

71616

3

71617

6

74459

2

74460

3

*(1)*

D2647

Manufactured

No

110

Each

253.0000

1

1

**\*D2647\***

Cap

\*\*

*8/11-12-06*

Location

Loc Qty

Loc Code

LG002

253

55352

3

71171

1

73826

139

75482

110

*1*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

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Page 2

Work Order ID: 76618

**\*76618\***

Parent Item: D206-642-151

**\*D206-642-151\***

Parent Item Name: Replacement Skidtube

Start Date: 18/11/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-04

Purchased

No

180

Each

15,860.00

52

52

**\*CR3212-4-04\***

Cherry Rivet

\*\*

De 11/12/07

Location

Loc Qty

Loc Code

ST331

5870

116471

78

117816

3

118686

1

118840

16

119017

5762

119075

10

st510

9990

119075

9990

D2654-1

Manufactured

No

180

Each

4.0000

1

1

**\*D2654-1\***

Web

\*\*

De 11/12/07

Location

Loc Qty

Loc Code

LG

4

73794

1

73799

1

75475

1

75477

1

D3286-1

Manufactured

No

180

Each

175.0000

2

2

**\*D3286-1\***

Doubler

\*\*

De 11/12/07

Location

Loc Qty

Loc Code

LG002

175

74111

1

74441

4

74872

59

75484

111

November-18-11 9:18:49 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

November-18-11 9:18:49 AM

Page 3

Work Order ID: 76618

**\*76618\***

Parent Item: D206-642-151

**\*D206-642-151\***

Parent Item Name: Replacement Skidtube

Start Date: 18/11/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

200

Each

461.0000

19

19

**\*D2649\***

Cross Bolt Spacer

**\*\***

BE11-12-08  
B 73859 \*19

Location

Loc Qty

Loc Code

LG

134

68224

2

71355

2

72704

2

72841

11

73855

117

LG001

327

65317

1

68507

11

73390

8

73857

21

73858

282

73860

4

D3286-3

Manufactured No

200

Each

153.0000

2

2

**\*D3286-3\***

Spacer

**\*\***

BE11-12-09

Location

Loc Qty

Loc Code

LG

72

74870

72

LG001

1

74117

1

LG002

80

75483

80

2

November-18-11 9:18:49 AM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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NOTE: Date & initial all entries

# Picklist Print

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Page 4

Work Order ID: 76618

\*76618\*

Parent Item: D206-642-151

\*D206-642-151\*

Parent Item Name: Replacement Skidtube

Start Date: 18/11/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

D2680-041

Manufactured No

210 Each

46.0000 1

\*D2680-041\*

Nut Plate

\*\*

1  
1

11/12/09

Location	Loc Qty	Loc Code
LG	1	
73334	1	
ST020	44	
73854	44	

CR3212-4-03

Purchased No

210 Each

1,904.000 2

\*CR3212-4-03\*

Cherry Rivet

\*\*

2  
2

11/12/09

Location	Loc Qty	Loc Code
FB	2	
110139	2	
ST331	1900	
114859	900	
119017	1000	

AN960JD416

NAS1149D0463J Purchased

No

210 Each

0.0000 1

\*AN960JD416\*

Washer

\*\*

1

118354

CCR264SS3-3

Purchased No

210 Each

1,163.000 2

\*CCR264SS3-3\*

Cherry Rivet

\*\*

2  
2

11/12/09

Location	Loc Qty	Loc Code
FP	2	
113973	2	
ST311	187	
117849	187	
ST317	972	
119017	972	

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Page 4

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



# Picklist Print

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Page 5

Work Order ID: 76618

\*76618\*

Parent Item: D206-642-151

\*D206-642-151\*

Parent Item Name: Replacement Skidtube

Start Date: 18/11/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

MS27039-4-06

Purchased

No

210

Each

384.0000

1

1

\*MS27039-4-06\*

Screw

\*\*

BR 11-12-20

Location

Loc Qty

Loc Code

ST291

384

119075 ✓

384

1

D2651-1

Manufactured

No

270

Each

745.0000

6

6

\*D2651-1\*

Plug

\*\*

BR 11-12-20

Location

Loc Qty

Loc Code

FP

745

57869

1

66445

10

69018

2

70839

2

71037

31

73827 ✓

699

6

D2651-3

Manufactured

No

270

Each

1,235.000

6

6

\*D2651-3\*

O-Ring

\*\*

BR 11-12-20

Location

Loc Qty

Loc Code

FP

1235

61962

12

73489

223

73828 ✓

1000

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

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Page 6

Work Order ID: 76618

\*76618\*

Parent Item: D206-642-151

\*D206-642-151\*

Parent Item Name: Replacement Skidtube

Start Date: 18/11/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

D3873-1 Manufactured No

280

Each

821.0000

14

14

\*D3873-1\*

Bushing

\*\*

BR 11-12-20

Location

Loc Qty

Loc Code

ST088

76792.

821

64760

1

68247

4

73829

19

73830

16

73832

400

75481

381

14

D2646

Manufactured No

280

Each

235.0000

1

1

\*D2646\*

Aft Cap

\*\*

BR 11-12-20

Location

Loc Qty

Loc Code

FP002

218

73294

20

73825 ✓

198

FP004

8

68280

5

70945

1

71070

2

FP005

4

71038

4

FP006

5

62678

5

D3805-041

Manufactured No

280

Each

1.0000

1

1

\*D3805-041\*

Wearplate Assembly Fwd, Low Gear

\*\*

BR 11-12-20

Location

Loc Qty

Loc Code

FP001

75487

1

74893

1

1

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Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

November-18-11 9:18:49 AM

Page 7

Work Order ID: 76618

\*76618\*

Parent Item: D206-642-151

\*D206-642-151\*

Parent Item Name: Replacement Skidtube

Start Date: 18/11/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-08

Purchased

No

280

Each

1,747.000

2

2

\*MS27039-1-08\*

Screw

\*\*

BL 11-12-20

## Location

## Loc Qty

## Loc Code

ST291

1747

117423

117

118378

130

118910 ✓

500

119075

500

119109

500

2

MS21042L3

Purchased

No

280

Each

8,753.000

7

7

\*MS21042L3\*

Nut

\*\*

BL 11-12-20

## Location

## Loc Qty

## Loc Code

ST300

255

117441

16

117885

35

118451

5

118927

199

ST516

6000

119017

6000

ST518

2498

119075 ✓

2498

7

D3805-045

Manufactured

No

280

Each

5.0000

1

1

\*D3805-045\*

Wearplate Assembly Aft, Low Gear

\*\*

BL 11-12-20

## Location

## Loc Qty

## Loc Code

FP

5

73817

1

74896

1

74938

3

1

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Shop Packet Print

Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

November-18-11 9:18:49 AM

Page 8

Work Order ID: 76618

Parent Item: D206-642-151

Parent Item Name: Replacement Skidtube

\*76618\*

\*D206-642-151\*

Start Date: 18/11/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

AN960JD10L \*NAS1149D0332J ✓ Purchased

No

\*AN960JD10L \*

Washer

AN3-37A

Purchased

No

\*AN3-37A\*

Bolt

118384

280

Each

0.0000

2

2

\*\*

2

BR 11-12-20.

1,966.000

7

7

\*\*

BR 11-12-20.

Location

Loc Qty

Loc Code

ST354

4

117619

4

ST518

1962

119086 ✓

1962

7.

NAS1149D0363J

Purchased

No

\*NAS1149D0363J\*

Washer

280

Each

4,434.000

7

7

\*\*

BR 11-12-20.

Location

Loc Qty

Loc Code

ST019

16

117505

16

ST295

3000

119537

3000

ST298

1418

117601

148

118077

1

118612

55

118968 ✓

1214

7.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



ITEM	Qty -041	Qty -043	Part Number	Description
1	X		D3804-041	SKIDTUBE ASSEMBLY, 206 A/B LOW
2		X	D3804-043	SKIDTUBE ASSEMBLY, 206 A/B HIGH
5	1	1	D2600-1-160	EXTRUSION
6	1	1	D2646	AFT CAP
7	1	1	D2647	CAP
8	19	20	D2649	CROSS BOLT SPACER
9	6	8	D2651-1	PLUG
10	6	8	D2651-3	O-RING
11		1	D2654-3	WEB
12	1		D2654-1	WEB
13	1	1	D2680-041	NUT PLATE
14	2	2	D3286-1	DOUBLER
15	2	2	D3286-3	STUD
21	2	2	AN960JD10L	WASHER
22	1	1	AN960JD416	WASHER
23	2	2	CCR264SS3-3	RIVET
24	2	2	CR3212-4-03	RIVET
25	52	52	CR3212-4-04	RIVET
26	2	2	MS27039-1-08	SCREW
27	1	1	MS27039-4-06	SCREW

#### NOTES

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: NONE
- 8) WEIGHT: 12.5 lb
- 9) WELD PER DART QSI 004
- 10) BENDING: DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 11) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 12) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 76618 H.C.J  
11/11/18

RELEASED  
09.07.07  
PC EEN 09-530

A	NEW ISSUE	MB	08.07.07
REV.	DESCRIPTION	BY	DATE
DESIGN	97	DART AEROSPACE USA, INC	
DRAWN	97	PORT HADLOCK, WA	
CHECKED	97	DRAWING NO.	REV. A
MFG. APPR.	97	D3804	SHEET 1 OF 5
APPROVED	97	TITLE	SCALE
DE APPR.	97	SKIDTUBE ASSEMBLY, 206A/B	NTS
DATE	08.07.07	COPYRIGHT © 2008 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

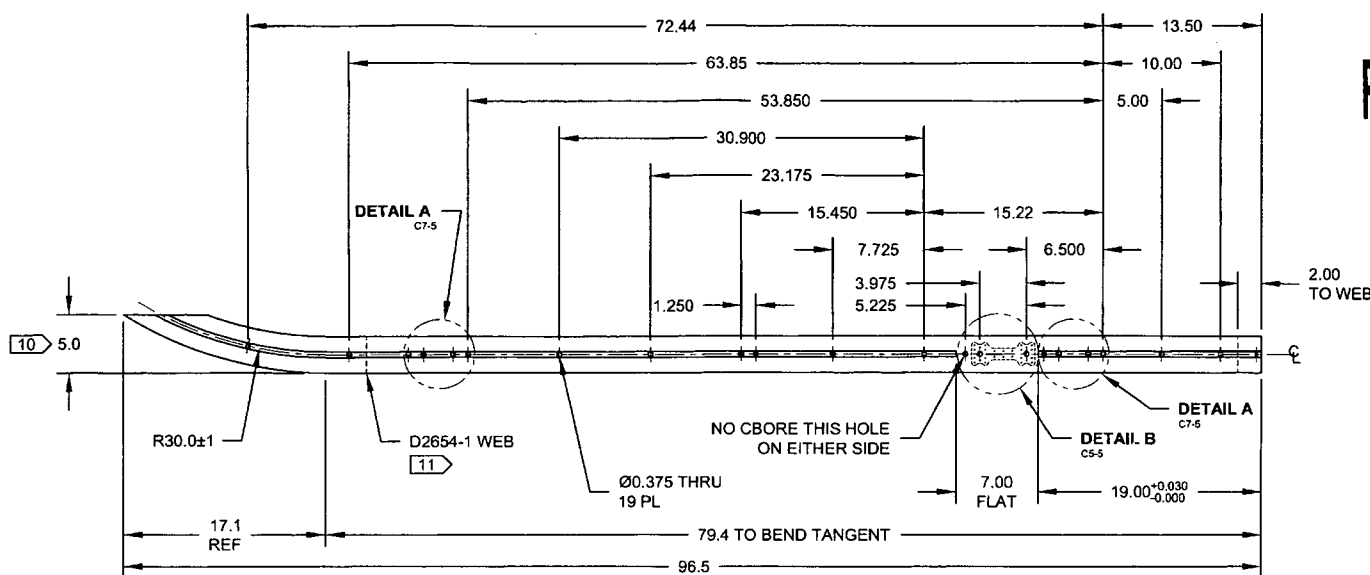
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

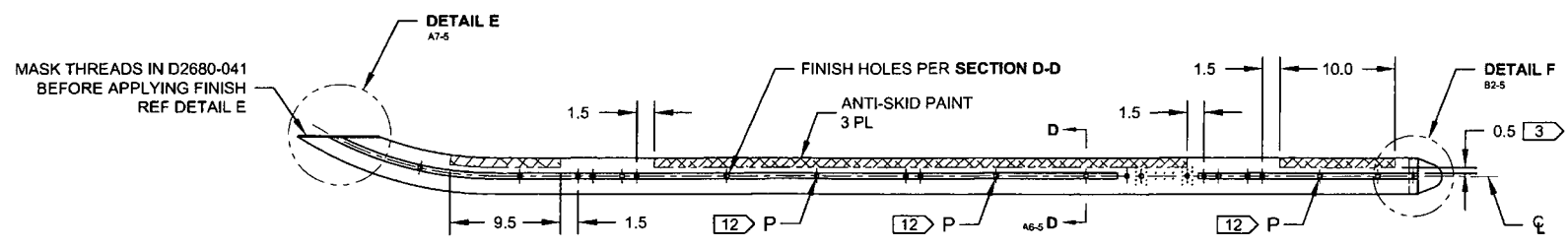
**NOTE:** Date & initial all entries

76618

RELEASED  
09.03.03



**D3804-041 BENDING/DRILLING DETAIL**



**D3804-041 ASSEMBLY/FINISHING DETAIL**

DESIGN	91	<b>DART AEROSPACE USA, INC</b>	
DRAWN	91	PORT HADLOCK, WA	
CHECKED	91	DRAWING NO.	REV. A
MFG. APPR.	91	D3804	SHEET 2 OF 5
APPROVED	91	TITLE	SCALE
DE APPR.	91	SKIDTUBE ASSEMBLY, 206A/B	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

RELEASED  
4 09.03.03



**DART AEROSPACE USA, INC**  
PORT HADLOCK, WA

DRAWING NO.	REV. A
D3804	SHEET 3 OF 5

TITLE	SCALE
SKIDTUBE ASSEMBLY, 206A/B	NTS

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

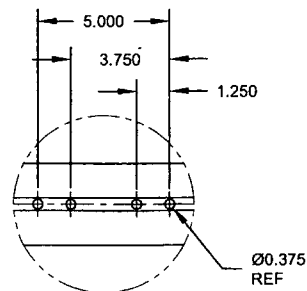
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

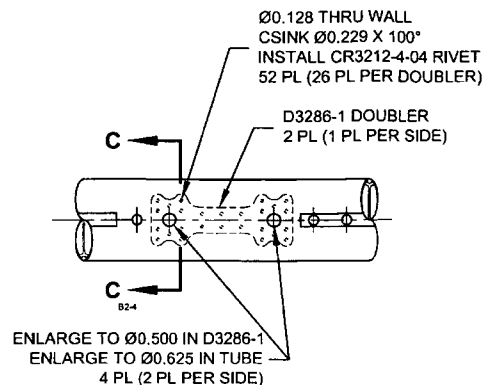
**NOTE:** Date & initial all entries

76618

RELEASED  
09.03.03



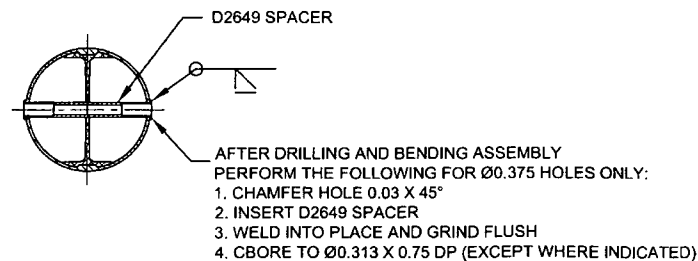
**DETAIL A**  
SCALE NONE  
D6-2  
C2-2  
D6-3  
C2-3



**DETAIL B**  
SCALE NONE  
C3-2  
C3-3

- TO INSTALL D3286-1/3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH OUTSIDE SURFACE OF ROUND TUBE
  2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
  3. ENLARGE HOLES IN D3286-1 TO Ø0.500
  4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.03 X 45°
  5. RIVET D3286-1 TO TUBE
  6. INSERT D3286-3 SPACER
  7. WELD IN PLACE AND GRIND FLUSH

**SECTION C-C**  
PARTIAL SECTION  
SCALE NONE  
C6-4



**SECTION D-D**  
FOR Ø0.375 HOLES ONLY  
SCALE NONE  
A4-2  
A4-3

DESIGN	91	<b>DART AEROSPACE USA, INC</b>	
DRAWN	91	PORT HADLOCK, WA	
CHECKED	91	DRAWING NO.	REV. A
MFG. APPR.	91	D3804	SHEET 4 OF 5
APPROVED	91	TITLE	SCALE
DE APPR.	91	SKIDTUBE ASSEMBLY, 206A/B	NTS
DATE	08.07.07	COPYRIGHT © 2008 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

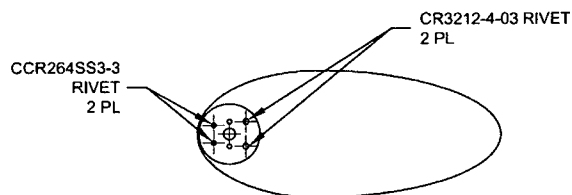
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

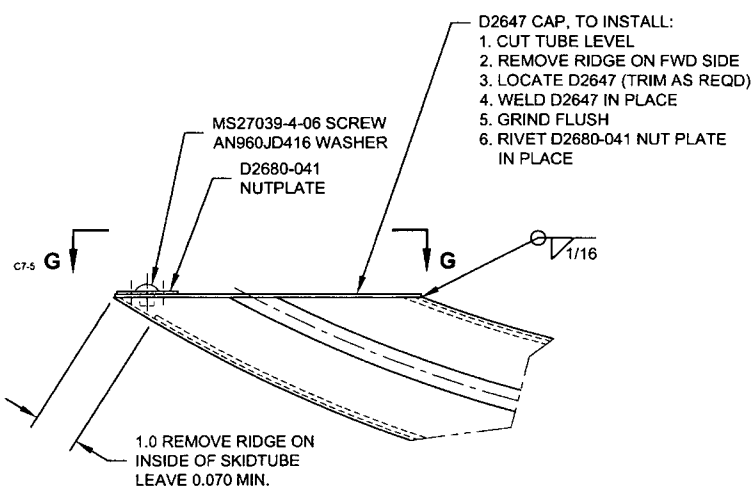


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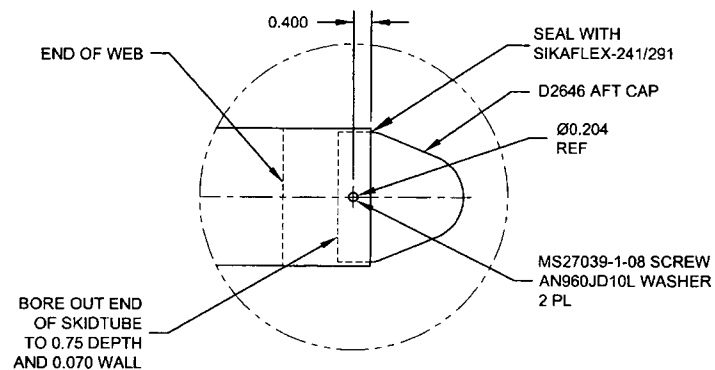
RELEASED  
97 09.03.03



**VIEW G-G**  
SCALE NONE A7.5



**DETAIL E**  
SCALE NONE B7.2 B7.3



**DETAIL F**  
SCALE NONE B2.2 B2.3

DESIGN	97	<b>DART AEROSPACE USA, INC</b>	
DRAWN	J	PORT HADLOCK, WA	
CHECKED	97	DRAWING NO.	REV. A
MFG. APPR.	B	D3804	SHEET 5 OF 5
APPROVED	97	TITLE	SCALE
DE APPR.	97	SKIDTUBE ASSEMBLY, 206A/B	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

NO. 274

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 75391  
Part number: D206 64.2 151  
Description: D206 solid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminum  
Current: AC[ ] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Sal Kurn Date of Test Coupon 11-11-18

Welder Sal Kurn Date of Test Coupon 11-11-18

The above named individual is qualified in accordance with AWS D17.1.2001 to weld